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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/864,821 | 09/19/2001 | Michael W. Masters | NC 82185 | 2379 |

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EXAMINER

OSMAN, RAMY M

ART UNIT PAPER NUMBER

2157

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/864,821 | Applicant(s) MASTERS ET AL. | |
| | Examiner Ramy M. Osman | Art Unit 2157 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. This communication is responsive to the amendment filed on January 18, 2005. Claims 1-48 are pending. The rejections cited are as stated below.

Filing Date

2. Examiners notes the discrepancy between the filing date of the original non-provisional application (May 24,2001) and the currently listed filing date of September, 19, 2001. The original application did not have a signed oath and declaration. On September, 19, 2001 applicant submitted a signed oath and declaration, however the oath was signed by the inventors on 8/9/2001 and 8/23/2001 which is after original filing date.

Claim Objections

3. Claim 14 objected to because of the following informalities:

On line 5, "on respective one" should be changed to either "on a respective one" or to "on respective ones".

On line 10, change "ot" to "to".

4. Claim 19 objected to: on line 3 change "K program" to "N program".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Applicants amendment failed to overcome some of the previous 112 second paragraph rejections. The following rejections stand:

7. Claims rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. As to claims 1,2 and 8, the limitation “a program control device responsive to signals in which commands are sent for ordering startup...” is unclear. It is not known whether the control device gets signals which cause it to send commands for ordering startup, or if the control device receives signals that have commands that cause the control device to startup.

9. Claims 1,2 and 8 also state the limitation “based on...” which is unclear. It is not known whether the managed application is “based on”, or if the program control device is “based on”, or if the signals are “based on”, or if the commands are “based on”.

10. Claim 14 recites the limitation “agents residing on a respective on of the N hosts” which is unclear. “on of the N hosts” is not understood.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claims 1-48 rejected under 35 U.S.C. 102(a) as being anticipated by Boukobza et al (US Patent No 6,122,664).

13. In reference to claims 1,2 and 8, Boukobza teaches in a distributed environment, and on a host instantiating at least one copy of a managed characteristic application, wherein other copies of the managed characteristic application have been instantiated on other hosts (Summary, Boukobza discloses distributed monitoring processes throughout a plurality of nodes),

a program control device responsive to signals in which commands are sent for ordering start up of an additional copy of the managed characteristic application or configuration, or shutdown of the least one copy of the managed characteristic application (column 4 lines 35-40, column 5 lines 1-20 and column 5 line 60 – column 6 line 30, Boukobza discloses a management node starting, stopping, configuring and restarting monitoring processes), based on a first information regarding performance and status of all applications including all copies of the managed characteristic application and a second information regarding performance of the host (Column 5 lines 19-67 and column 6 lines 15-40, Boukobza also discloses the monitoring communicating information regarding conditions and status to the management node).

14. In reference to claims 3 and 9, Boukobza teaches the program control device as recited in claims 2 and 8 respectively, wherein the managed characteristic application comprises a scalable application. (column 6 lines 10-25)

15. In reference to claims 4 and 10, Boukobza teaches the program control device as recited in claims 2 and 8 respectively, wherein the managed characteristic application comprises a fault

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tolerant application, where the degree of fault tolerance is selectable by a user (column 5 lines 19-45).

16. In reference to claims 5 and 11, Boukobza teaches the program control device as recited in claims 2 and 8 respectively, wherein the managed characteristic application comprises a selectable priority application. (column 5 lines 19-45)

17. In reference to claims 6 and 12, Boukobza teaches the program control device as recited in claims 2 and 8 respectively, wherein the managed characteristic application further responds to user-initiated control actions (column 4 lines 40-67 and column 5 line 63 – column 6 line 15).

18. In reference to claims 7 and 13, Boukobza teaches the program control device as recited in claims 2 and 8 respectively, wherein the program control device modifies the configuration of the managed characteristic application responsive to instantaneous tasking by a user. (column 4 lines 40-67 and column 5 line 63 – column 6 line 15)

19. In reference to claims 14,36 and 39, Boukobza teaches a grid system, a distributed environment and software stored on hosts, comprising N hosts instantiating M managed characteristic applications, a program control software instantiated by and located on at least the N hosts (Summary), comprising:

N program control agents residing on a respective one of the N hosts and providing direct control over startup, configuration, and shutdown of applications on respective one of the N hosts, based on information regarding performance and status of all of the M managed characteristic applications (column 5 lines 1-25 and column 6 lines 1-30, Boukobza discloses monitoring processes on a respective plurality of nodes providing starting, stopping, configuring and restarting); and

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a program controller operatively coupled to the N program control agents (column 4 lines 35-41, Boukobza discloses a management node coupled to the plurality of nodes), the program controller receiving one of the interactive and automatic application control requests and generates specific control orders which are sent to the individual N program control agents responsive thereto (column 4 lines 63-67, column 5 lines 19-67 and column 6 lines 15-40); where N and M are positive integers (a plurality of elements is inherently a positive number and is therefore inherent in Boukobza).

20. In reference to claims 15, 37 and 40, Boukobza in view of Johnson teach program control software as recited in claim 14, wherein the specific control orders include one of startup orders permitting instantiation of an (M+1)th managed characteristic application or shutdown and configuration orders permitting a status change regarding one of the M managed characteristic applications (column 3 lines 1-40 and column 6 lines 1-30).

21. In reference to claims 16 and 41, Boukobza teaches the program control software as recited in claim 14, further comprising:

K program control displays permitting interactive control of distributed applications, where K is a positive integer (column 2 lines 55-65).

22. In reference to claims 17 and 18, Boukobza teaches program control software as recited in claim 16, wherein the K program control displays depict current status and the configuration of the M managed characteristic applications and of all applications instantiated on the grid system (column 4 lines 40-65 and column 5 lines 1-15 & 40-60).

23. In reference to claims 19 and 42, Boukobza teaches the program control software as recited in claim 16, wherein each of the K program control displays comprises a graphical user

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interface (GUI) permitting a user to determine the status of each of the K program control agents and the program controller (column 4 lines 40-65).

24. In reference to claims 20 and 43, Boukobza teaches the program control software as recited in claim 16, wherein the K program control displays respond to one or more L configuration files, wherein L is a positive integer (column 4 lines 60-67).

25. In reference to claims 21 and 44, Boukobza teaches the program control software as recited in claim 20, wherein each of the K program control displays permits a user to one of create new configuration files and edit an existing one of the L configuration files (column 4 lines 50-67 and column 6 lines 1-30).

26. In reference to claims 22 and 45, Boukobza teaches the program control software as recited in claim 20, wherein selected ones of the L configuration files correspond to predefined scenario configurations (column 6 lines 1-30).

27. In reference to claim 23, Boukobza teaches the program control software as recited in claim 14, wherein the specific control orders permit a subset of the managed characteristic applications to be started and stopped (column 6 lines 10-25).

28. In reference to claims 24-26, Boukobza teaches the program control software as recited in claim 22, wherein all of the M managed characteristic applications in the subset are started and stopped simultaneously, in a predetermined sequence, and having delay time (column 5 lines 1-25 and column 6 lines 10-40).

29. In reference to claims 27-29, Boukobza teaches the program control device as recited in claim 23, wherein a first subset of the M managed characteristic applications comprise scalable applications and a second subset of the M managed characteristic applications comprise fault

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tolerant applications, where the degree of fault tolerance is selectable by a user, and a third subset of the M managed characteristic applications comprise scalable applications (column 5 and column 6 lines 15-50)

30. In reference to claim 30, Boukobza teaches the program control device as recited in claim 14, wherein the managed characteristic application comprises a scalable application (column 6 lines 10-25)

31. In reference to claim 31, Boukobza teaches the program control device as recited in claim 14, wherein the managed characteristic application comprises a fault tolerant application, where the degree of fault tolerance is selectable by a user (column 5 lines 19-45).

32. In reference to claim 32, Boukobza teaches the program control device as recited in claim 14, wherein the managed characteristic application comprises a selectable priority application (column 5 lines 19-45).

33. In reference to claim 33,38 and 46, Boukobza teaches the program control software as recited in claim 14, wherein:

each of the N hosts operates in accordance with a selected one of R operating systems; the N program control agents implement the orders via system call mechanisms specific to the particular operating system of a corresponding one of the N hosts; R is a positive integer; and N is greater than or equal to R (column 5 lines 1-25 & 45-65, operating systems are inherent features of computers).

34. In reference to claims 34 and 47, Boukobza teaches the program control software as recited in claim 14, wherein each of the N program control agents provides feedback to the program controller regarding the current status and configuration of all applications running on a

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respective one of the N hosts, and provides feedback to the program controller regarding host status for the respective one of the N hosts (Summary).

35. In reference to claims 35 and 48, Boukobza teaches the program control software as recited in claim 14, further comprising:

K program control displays permitting interactive control of distributed applications, wherein:

each of the K program control displays comprises a graphical user interface (GUI) permitting a user to determine the status of each of the N program control agents and the program control function; each of the K program control displays respond to a respective subset of L configuration files, wherein K and L are positive integers, and wherein K, L and N may be equal to or different than one another (column 4 lines 35-65 and column 5 lines 1-15 & 40-60); and

the program controller, using information from specification files different than the L configuration files, generates the specific control orders by translating the control function requests into the specific control orders (column 5 lines 1-15 & 40-60).

Response to Amendment

36. The examiner acknowledges the amendments made to claims 1,2,8,14,20,21,23-29,34-36,39,44 and 45.

Response to Arguments

37. Applicant's arguments with respect to claim 1/18/2005 have been considered but are moot in view of the new ground(s) of rejection.

38. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

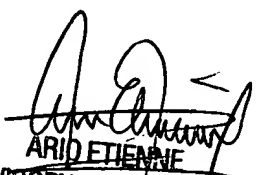
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M. Osman whose telephone number is (571) 272-4008. The examiner can normally be reached on M-F 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMO
April 20, 2005


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